

CLAIMS

We claim:

1. An automated banking machine apparatus comprising:

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a housing;

a user interface in supporting connection with the housing, the user interface including at least one input device and at least one output device, wherein the at least one input device includes a card reader having an associated card reader slot adapted to accept cards input by users of the apparatus;

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at least one radiation emitting device positioned adjacent the slot;

at least one radiation sensing device adjacent the slot such that positioning an unauthorized card reading device adjacent the slot causes a change in at least one property of radiation from the at least one radiation emitting device that is sensed by the at least one radiation sensing device;

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at least one controller in the housing, wherein the at least one controller is in operative connection with the at least one radiation sensing device and is

operative to generate at least one signal responsive to the change, whereby
installation of an unauthorized card reading device adjacent the slot is indicated.

2. The apparatus according to claim 1 and further comprising a currency dispensing
device in supporting connection with the housing.

5 3. The apparatus according to claim 2 wherein the at least one radiation emitting
device is operative to emit visible light.

4. The apparatus according to claim 3 wherein the controller is operative to cause the
apparatus to carry out a currency dispensing transaction, and wherein the controller is operative
to cause the at least one radiation emitting device to initiate emitting radiation during at least one
10 of a transaction step when a user card is to be inserted in the slot and a further transaction step
when a user card is to be taken from the slot.

5. The apparatus according to claim 4 and further comprising at least one data store,
wherein the controller is operative to cause at least one stored value corresponding to the at least
one property of radiation sensed by the at least one radiation sensing device to be stored in the
15 data store.

6. The apparatus according to claim 5 wherein the controller is operative to compare the at least one stored value with at least one current value corresponding to the at least one property of radiation currently sensed by the at least one radiation sensing device.

7. The apparatus according to claim 6 wherein the controller is operative responsive to determining a difference when comparing the at least one stored value to the at least one current value to cause a status message to be sent by the machine to a remote computer.

8. The apparatus according to claim 6 wherein the controller is operative responsive to determining a difference when comparing the at least one stored value to the at least one current value to cause an output message to be output through at least one output device on the user interface.

9. The apparatus according to claim 8 wherein the output message advises of a possible object near the slot.

10. The apparatus according to claim 6 wherein the controller is operative to change the at least one stored value responsive to the at least one current value.

11. The apparatus according to claim 6 wherein the at least one emitting device is adapted to surroundingly illuminate the card reader slot.

12. The apparatus according to claim 6 wherein the controller is operative to compare the at least one stored value with the at least one current value at a time when a transaction is not being conducted by a user at the apparatus.

13. The apparatus according to claim 6 wherein the controller is operative to execute
5 fuzzy logic in comparing the at least one current value with the at least one stored value.

14. The apparatus according to claim 1 and further comprising a housing member bounding at least one side of the card reader slot, and wherein the at least one radiation emitting device and the at least one radiation sensing device are mounted in supporting connection with the housing member.

10 15. The apparatus according to claim 14 wherein the housing member extends in surrounding relation of the card reader slot.

16. An automated banking machine apparatus comprising:

a housing;

a user interface in supporting connection with the housing, the user interface

15 including at least one input device and at least one output device, wherein the at

least one input device includes a card reader having an associated card reader slot adapted to accept cards input by users of the machine;

at least one sensing device positioned adjacent the card reader slot on the user interface, wherein the at least one sensing device is adapted to sense an

5 unauthorized card reading device positioned adjacent the card reader slot;

at least one controller in the housing and in operative connection with the at least one sensing device, wherein the at least one controller is operative to cause the apparatus to produce at least one output responsive to sensing the unauthorized card reading device.

10 17. The apparatus according to claim 16 wherein the at least one sensing device comprises at least one radiation sensing device.

18. The apparatus according to claim 17 and further comprising at least one radiation emitting device adjacent the card reader slot, wherein the at least one radiation sensing device is adapted to sense radiation emitted by the at least one radiation emitting device.

15 19. The apparatus according to claim 18 wherein the at least one radiation emitting device is in operative connection with the at least one controller, wherein the controller is operative to selectively cause the at least one radiation emitting device to emit radiation.

20. The apparatus according to claim 16 wherein the at least one controller is in operative connection with at least one data store, and wherein the at least one controller is operative to cause to be stored in the at least one data store at least one stored value responsive to at least one signal from the at least one sensing device, to compare the at least one stored value to at least one current value corresponding to at least one signal currently produced by the at least one sensing device, and to produce the at least one output responsive to a result of the comparison.

21. The apparatus according to claim 20 wherein the at least one output comprises a status message.

22. The apparatus according to claim 20 wherein the at least one controller is further operative to cause the at least one stored value to be changed responsive to the at least one current value.

23. The apparatus according to claim 20 wherein the at least one controller is operative to execute fuzzy logic in comparing the at least one stored value and the at least one current value.

24. The apparatus according to claim 19 and further comprising a slot member on the user interface and bounding at least one side of the card slot, and wherein the at least one

radiation emitting device and the at least one radiation sensing device are mounted in supporting connection with the slot member.

25. The apparatus according to claim 24 wherein the slot member extends in generally surrounding relation of the card slot, and the at least one radiation emitting device is operative to
5 visibly illuminate an area surrounding the card slot.

26. A method comprising:

- (a) sensing with at least one sensing device adjacent to a card reader slot of a user interface of an automated banking machine, an unauthorized card reader device attached to the user interface;
- 10 (b) responsive to sensing the unauthorized card reader device, providing at least one output from the machine.

27. The method according to claim 26 wherein step (b) comprises sending a status message from the machine.

28. The apparatus according to claim 26 wherein step (b) comprises providing a
15 notice indicating presence of a possible unauthorized reader device to a user of the machine through at least one output device.

29. The method according to claim 26, and wherein step (a) comprises:

emitting radiation with at least one emitting device adjacent the card slot;

sensing radiation from the at least one emitting device with at least one radiation sensor device adjacent the card slot.

5 30. The apparatus according to claim 29 wherein step (a) further comprises:

comparing at least one property of radiation sensed from the at least one sensing device to at least one stored value.

31. The method according to claim 30 and further comprising:

(c) operating the at least one radiation emitting device when no unauthorized
10 card reader device is sensed;

(d) sensing radiation emitted in step (c) with at least one radiation sensing device;

(e) changing the at least one stored value responsive to radiation sensed in step (d).

32. The method according to claim 30 wherein the step of comparing radiation sensed with the at least one sensing device to the at least one stored value comprises executing fuzzy logic.

33. The method according to claim 29 wherein the at least one radiation emitting device emits visible light and further comprising:

(c) illuminating the at least one radiation emitting device when the machine conducts a transaction step in which a card is to be removed from the slot.

34. The method according to claim 33 and prior to step (c) further comprising:

dispensing currency from the machine, and wherein in step (c) the at least one emitting device illuminates the card slot in generally surrounding relation.

35. The method according to claim 34 and further comprising capturing a card that has been subject to being read by the unauthorized reading device through operation of the machine.

36. The method according to claim 35 and further comprising cancelling an account associated with the captured card.

37. The method according to claim 34 and further comprising monitoring activity on an account associated with a card responsive to the card being read by the unauthorized reading device.